

## A NEW *MAEMACTES* ATTACKING ALFALFA IN MEXICO (COLEOPTERA; CURCULIONIDAE)<sup>1</sup>

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**ABSTRACT:** *Maemactes pestis*, a new species from Mexico, is known to attack alfalfa by burrowing as larvae in the crowns and roots of the host plants. The species is described and a diagnosis separating it from *ruficornis* Boheman is included, along with illustrations of the male phallus and the female spermatheca and 8th sternite of both species.

Kissinger (1963) reviewed the genus *Maemactes* and keyed the seven species then recognized as valid. As he indicated in his paper, little was known concerning their biology. His new species *punctatus* was taken from an *Andropogon* clump and *cribratus* LeConte was taken under cowchips. His new species *imitator* was intercepted in quarantine on orchid plants. I have collected large numbers of specimens of *ruficornis* Boheman under stones in mountain meadows and have beaten *perforatus* Champion from jungle edge in Panama. Because so little is known concerning this genus it is of considerable interest to report on this new species which is potentially a serious pest of alfalfa in Mexico, burrowing in the roots and crowns of the host plants.

All of the specimens of the new species herein described were collected by Dr. M.H. Schonhorst who, with others, is preparing a paper on the life history of this weevil and the economic damage to alfalfa that it causes. He collected the specimens from infested plants transplanted from field plots. He split open the roots of supposedly infested plants and those with larvae were transferred to clay pots in a greenhouse. These were covered with screen boxes and the adults which emerged months later were collected. Some larvae, pupae and teneral adults were also collected from their galleries in the roots of the alfalfa (Schonhorst, pers. comm.). I shall describe the immature stages in a future paper.

### *Maemactes pestis* O'Brien, n. sp.

**Holotype male.** - Elongate oblong, sides subparallel, black to brownish black, clothed with moderately sparse, suberect, brown to blackish, fine setae.

**Rostrum** moderately stout, not merging evenly with head, base strongly broadly

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gibbous, *ca.* twice as wide at base as at apex, basal 1/3 with large, lateral, coarse, contiguous punctures, becoming smaller, sparser, and less coarse towards apex. Head with large, coarse, rugose punctures between eyes, on frontal area punctures large and coarse, laterally becoming smaller and separated, with narrow punctate groove above eye, vertex with smaller, finer, more separated, distinct punctures; frons depressed, not foveate, between eyes *ca.* 3/4 as wide as rostrum at narrowest point; eyes narrow, transverse, acutely oval, *ca.* 1/2 as long as wide. **Prothorax** scarcely wider than long, laterally rounded, expanded from base to before middle and there strongly narrowed to nontubulate apex, apex slightly more than 1/2 width of base; notum rather planate, punctures moderate, separated by 1/2 to about their diameter, rather evenly distributed, though with indefinite median line, surface shining, indistinctly finely reticulate; suberect setae arising from center of punctures, pleural margin with larger, denser, subcontiguous punctures; pleuron with larger, separate punctures, surface matte, strongly reticulate. **Scutellum** small, round, densely clothed with yellowish brown, subrecumbent, scalelike setae. **Elytra** elongate, with humerus subangulate, very weakly developed; slightly swollen behind and below humerus, subparallel to declivity, there narrowed and broadly evenly rounded to apex; intervals weakly convex, uneven in width, 1-3 subequal in width to large, quadrate, deep strial punctures, outer intervals *ca.* 1/2 to 3/4 width of strial puncture; all intervals with rather large punctures, outer intervals with single row, 2nd and 3rd with uneven row or rarely an interrupted double row, 1st with 2 rows in apical 2/3, all punctures with rather indistinct, short, curved, yellowish to brownish setae (more obvious in lateral view); strial punctures narrowly separated by slightly depressed ridges, striae evident only at base and from declivity to apex. **Legs** moderately stout, elongate; coxae densely clothed with recumbent to subrecumbent, white to golden brown, scalelike setae; femora evenly, densely, coarsely punctate, with short, subrecumbent, scalelike setae; fore femur unarmed, mid and hind femora with small distinct tooth; tibiae very densely, shallowly, coarsely punctate, all clearly mucronate on inner apical angle. **Venter** rather evenly, coarsely, shallowly punctate; lateral punctures larger, coarser and denser, each puncture with subrecumbent, fine to scalelike seta; abdominal sternite 1 broadly deeply medially depressed, depression continuing on sternite 2; 2 as long as 3 and 4 together, distinctly longer than 5; apex of sternite 5 and visible portion of pygidium very densely clothed with recumbent to suberect, golden-brown, scalelike setae; pygidial tergite distinctly laterally expanded at apex, apex acutely declivous. Length: pronotum and elytron, 5.9 mm.

**Allotype female.** - Very similar to male; abdominal sternites 1 and 2 very slightly depressed; pygidial tergite not expanded laterally at apex, apex obtusely declivous. Length: pronotum and elytron, 6.0 mm.

**Material examined.** - On hand for this study were 190 specimens, including 61 adults of this species. Numerous larvae and pupae were also available.

**Range.** - Known only from the State of Guanajuato, Mexico, 5 km. N. of Celaya.

**Holotype male and allotype female,** Mexico: State of Guanajuato, 5 km. N. Celaya, ex roots alfalfa, M.H. Schonhorst, emerged 25-30-VI-1977, ex plants coll'd Jan.-Mar. 1977. Paratypes, same data (59); same locality, VIII-1975, in crown alfalfa, larvae damaging crown, assoc[iation] likely, foliage chlorotic, M. Schonhorst (2).

Deposition of holotype and allotype, author's collection. Paratypes are deposited in the following collections: author's, Tallahassee, FL.; University of Arizona, Tucson, AZ.; British Museum (Natural History), London, England; U.S. National Museum, Washington, D.C.; E.L. Sleeper collection, Long Beach, CA; and D.G. Kissinger, Loma Linda, CA.

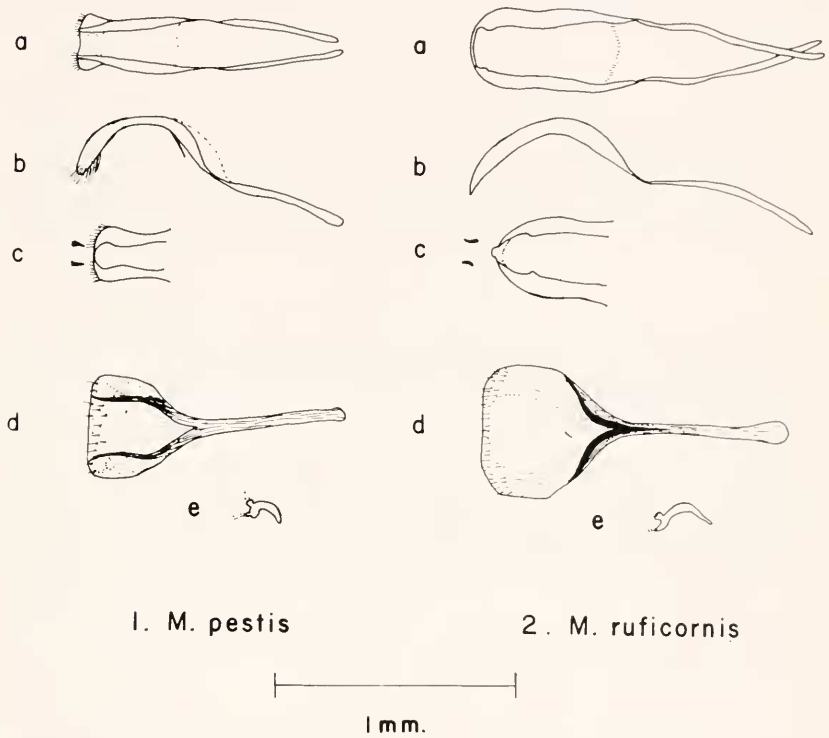


Figure 1. *Maemactes pestis* O'Brien, n. sp.

Figure 2. *M. ruficornis* Boheman; a, dorsal view of phallus; b, lateral view of phallus; c, apicodorsal view of phallus; d, dorsal view of female 8th sternite; e, lateral view of spermatheca.

Kissinger treated this species as *ruficornis* Boheman but I have seen Boheman's type in Stockholm and the species are quite distinct. They can be readily separated by the following characters. The intervals of *ruficornis* are relatively flat and very uneven in width, often with the alternate intervals 2 to 3 times as wide as the sutural interval. Strial punctures are large, very unevenly distributed, and usually elongate oval. Punctures of the intervals are small, in single uneven rows on the narrow intervals and irregularly distrib-

uted on the wide intervals. Elytral setae are small, recumbent, and scarcely visible. The rather acute apex of the male phallus (fig. 2b) will readily separate the species.

The rather uniform weakly convex elytral intervals with moderately large distinct single or double rows of punctures and evenly distributed quadrate to round striae punctures, along with the distinct though small suberect setae of *pestis* and the broad truncate apex of the male phallus (fig. 1a) are diagnostic. And *pestis* is not likely to be confused with the other species which either possess scales or erect fine setae or have characteristics of *ruficornis*.

#### ACKNOWLEDGEMENT

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#### LITERATURE CITED

- Kissinger, D.G. 1963. Weevils of the genus *Maemactes* (Coleoptera: Curculionidae) Proc. U.S. Nat. Mus. 114(3474):479-486.